

SEQUENCE LISTING

<110> Scanlan, Matthew J.
Chen, Yao-Tseng
Stockert, Elisabeth
Old, Lloyd J.

<120> ISOLATED NUCLEIC ACID MOLECULES
ASSOCIATED WITH COLON CANCER AND METHODS FOR DIAGNOSING AND
TREATING COLON CANCER

<130> LUD-5506-JEL/NDH

<140> US 08/948,705
<141> 1997-10-10

<160> 8

<170> FastSEQ for Windows Version 3.0

<210> 1
<211> 1552
<212> DNA
<213> Homo Sapiens

<400> 1

cttctggatg	catccgagaa	gctaaaactt	acttatgagg	aaaagtgtga	aattgaggaa	60
tcccaattga	agttttttgag	gaacgactta	gctgaatata	agagaacttg	tgaagatctt	120
aaagagcaac	taaagcataa	agaattttctt	ctggctgcta	atacttgtaa	ccgtgttggt	180
ggtctttggt	tgaaatgtgc	tcagcatgaa	gctgttcttt	cccaaaccga	tactaatggt	240
catatgcaga	ccatcgaaaag	actggttaaa	gaaagagatg	acttgatgtc	tgcactagtt	300
tccgtaagga	gcagcttggc	agatacgag	caaagagaag	caagtgttta	tgaacagggtg	360
aaacaagttt	tgcaaatata	tgaggaagcc	aattttgaaa	aaaccaaggc	tttaatccag	420
tgtgaccagt	tgaggaagga	gctggagagg	caggcggagc	gacttgaaaa	agaacttgca	480
tctcagcaag	agaaaagggc	cattgagaaa	gacatgatga	aaaaggaaat	aacgaaagaa	540
agggagtaca	tgggatcaaa	gatgttgatc	ttgtctcaga	atattgacca	actggaggcc	600
caggtggaaa	aggttacaaa	ggaaaagatt	tcagctatta	atcaactgga	ggaaattcaa	660
agccagctgg	cttctcggga	aatggatgtc	acaaaggtgt	gtggagaaat	gcgctatcag	720
ctgaataaaa	ccaacatgga	gaaggatgag	gcagaaaagg	agcacagaga	gttcagagca	780
aaaactaaca	gggatcttga	aattaaagat	caggaaatag	agaaattgag	aatagaactg	840
gatgaaagca	aacaacactt	ggaacaggag	cagcagaagg	cagccctggc	cagagaggag	900
tgcttgagac	taacagaact	gctgggagaa	tctgagcacc	aactgcacct	caccagatct	960
gaaatagctc	aactcagtca	agaaaaaagg	tatacatatg	ataaattggg	aaagttagag	1020
agaagaaatg	aagaattgga	ggaacagtgt	gtccagcatg	ggagagtaca	tgagacgatg	1080

	aagcaaaggc	taaggcagct	ggataagcac	agccaggcca	cagcccagca	gctgggtgcag	1140
	ctcctcagca	agcagaacca	gcttctcctg	gagaggcaga	gcctgtcggg	agaggtggac	1200
	cgggtgcgga	cccagttacc	cagcatgcca	caatctgatt	gctgacctgg	atggaacaga	1260
	gtgaaataaa	tgaattacaa	agagatattt	acattcatct	ggtttagact	taatatgcca	1320
5	caacgcacca	cgaccttccc	aggggtgacac	cgctcagcc	tgcagtgggg	ctggctctca	1380
	tcaacgcggg	cgctgtcccc	gcacgcagtc	gggctggagc	tggagtctga	ctctagctga	1440
	gcagactcct	ggtgtatggt	ttcagaaatg	gcttgaagtt	atgtgtttaa	atctgctcat	1500
	tcgtatgcta	ggttatacat	atgattttca	ataaatgaac	tttttaaaga	aa	1552

10 <210> 2
 <211> 2885
 <212> DNA
 <213> Homo Sapiens

15	<400> 2						
	ggaattcctc	ttgtcgaagt	caaaggagcc	cacaccaggc	ggcctcaacc	attccctccc	60
	acagcacccc	aaatgctggg	gagcccacca	tgcttctttg	gaccagagtt	cccctcccca	120
	gagcggcccc	cctgggacgc	ctccctccta	caaactgcct	ttgcctgggc	cctacgacag	180
	tcgagacgac	ttccccctcc	gcaaaacagc	ctctgaaccc	aacttgaaag	tgcgttcaag	240
20	gctaaaacag	aaggtggctg	agcggagaag	cagtcacctc	ctgcgtcgca	aggatgggac	300
	tggtattagc	acctttaaga	agagagctgt	tgagatcaca	ggtgccgggc	ctggggcgctc	360
	gtccgtgtgt	aacagcgcac	ccggctccgg	ccccagctct	cccaacagct	cccacagcac	420
	catcgctgag	aatggcttta	ctggctcagt	ccccaacatc	cccaactgaga	tgtccctca	480
	gcaccgagcc	ctccctctgg	acagctcccc	caaccagttc	agcctctaca	cgtctccttc	540
25	tctgcccac	atctccctag	ggctgcaggc	cacggctact	gtcaccaact	cacacctcac	600
	tgctccccc	aagctgtoga	cacagcagga	ggccgagagg	caggccctcc	agtccttgcg	660
	gcagggtggc	acgctgaccg	gcaagttcat	gagcacatcc	tctattcctg	gctgcctgct	720
	gggctgtggc	ctggagggcg	acgggagccc	ccacgggcat	gcctccctgc	tgcagcatgt	780
	gctgttgctg	gagcaggccc	ggcagcagag	cacctcatt	gctgtgccac	tccacgggca	840
30	gtccccacta	gtgacgggtg	aacgtgtggc	caccagcatg	cggacggtag	gcaagctccc	900
	gcggcatcgg	cccctgagcc	gcactcagtc	ctcaccgctg	ccgcagagtc	cccaggccct	960
	gcagcagctg	gtcatgcaac	aacagcacca	gcagttcctg	gagaagcaga	agcagcagca	1020
	gctacagctg	ggcaagatcc	tcaccaagac	aggggagctg	cccaggcagc	ccaccacca	1080
	ccctgaggag	acagaggagg	agctgacgga	gcagcaggag	gtcttgctgg	gggaggggagc	1140
35	cctgaccatg	ccccgggagg	gctccacaga	gagtgaagag	acacaggaag	acctggagga	1200
	ggaggacgag	gaagaggatg	gggaggagga	ggaggattgc	atccaggtta	aggacgagga	1260
	gggagagagt	ggtgctgagg	aggggcccga	cttgaggagg	cctggtgctg	gatacaaaaa	1320
	actgttctca	gatgcccac	cgctgcaacc	tttgaggtg	taccaagcgc	ccctcagcct	1380
	ggccactgtg	ccccaccaag	ccctgggccc	taccacatcc	tcccctgctg	cccctggggg	1440
40	catgaagaac	ccccagacc	aaccgctcaa	gcacctcttc	accacaagtg	tggtctacga	1500
	cacgttcatg	ctaaagcacc	agtgcattgt	cggaacaca	cacgtgcacc	ctgagcatgc	1560
	tggccggatc	cagagcatct	ggtcccggct	gcaggagaca	ggcctgctta	gcaagtgcga	1620
	gcggatccga	ggtcgcaaag	ccacgctaga	tgagatccag	acagtgcact	ctgaatacca	1680
	cacctgctc	tatgggacca	gtcccctcaa	ccggcagaag	ctagacagca	agaagtgtct	1740
45	cggtcccatc	agccagaaga	tgtatgctgt	gctgccttgt	gggggcatcg	gggtggacag	1800

0011201516202530354045

	tgacaccgtg	tggaatgaga	tgcactcctc	cagtgtctgtg	cgcatggcag	tgggctgcct	1860
	gctggagctg	gccttcaagg	tggctgcagg	agagctcaag	aatggatttg	ccatcatccg	1920
	gccccagga	caccacgccg	aggaatccac	agccatggga	ttctgcttct	tcaactctgt	1980
	agccatcacc	gcaaaactcc	tacagcagaa	ggtgaacgtg	ggcaagggtcc	tcacgtgga	2040
5	ctgggacatt	caccatggca	atggcaccca	gcaggcggtc	tacaatgacc	cctctgtgct	2100
	ctacatctct	ctgcatcgct	atgacaacgg	gaacttcttt	ccaggctctg	gggctcctga	2160
	agaggttggg	ggaggaccag	gcgtggggta	caatgtgaac	gtggcatgga	caggaggtgt	2220
	ggaccccccc	attggagacg	tggagtacct	tacagccttc	aggacagtgg	tgatgcccat	2280
	tgcccacgag	ttctcacctg	atgtggtcct	agtctccgcc	gggtttgatg	ctgttgaagg	2340
10	acatctgtct	cctctgggtg	gctactctgt	caccgccaga	tgttttggcc	acttgaccag	2400
	gcagctgatg	accctggcag	ggggccgggt	ggtgctggcc	ctggagggag	gccatgactt	2460
	gaccgccatc	tgtgatgcct	ctgaagcttg	tgtctcggtc	ctgctcagtg	taaagctgca	2520
	gcccttggat	gaggcagtct	tgcagcaaaa	gccaacatc	aacgcagtgg	ccacgctaga	2580
	gaaagtcatc	gagatccaga	gcaaactctg	gagctgtgtg	cagaagtctg	ccgctggtct	2640
15	gggccggtcc	ctgcgagggg	cccaagcagg	tgagaccgaa	gaagccgaaa	tgtgaacgcc	2700
	atggccttgc	tgttggtggg	ggccgaacag	gccaagctg	cggcagcccc	ggaacacagc	2760
	cccaggccgg	cagaggagcc	catggagcag	gagcctgccc	tgtgacgccc	cggcccccat	2820
	ccctttgggc	ttcaccattg	tgattttgtt	tattttttct	attaaaaaca	aaaagttaaa	2880
	aattt						2885

<210> 3
<211> 1298
<212> DNA
<213> Homo Sapiens

<220>
<221> unsure
<222> 55..55
<223>

<220>
<221> unsure
<222> 141..141
<223>

<220>
<221> unsure
<222> 199..99
<223>

<220>
<221> unsure
<222> 342..342
<223>

<220>
<221> unsure
<222> 352..352
<223>

5

<220>
<221> unsure
<222> 722..722
<223>

10

<220>
<221> unsure
<222> 750..750
<223>

15

<220>
<221> unsure
<222> 1058..1058
<223>

20

<220>
<221> unsure
<222> 1101..1101
<223>

25

<220>
<221> unsure
<222> 1144..1144
<223>

30

<400> 3

ggctgctgaa	atgactgcga	accggcttgc	agagagcctt	ctggctttga	gccancagga	60
agaactagcg	gatttgccaa	aagactacct	cttgagtgag	agtgaagatg	aggggggacaa	120
tgatggagag	agaaagcatc	naaagcttct	ggaagcaatc	agttcccttg	atggaaagaa	180
taggcggaaa	ttggctgana	ggtctgaggc	tagtctgaag	gtgtcagagt	tcaatgtcag	240
ttctgaagga	tcaggagaaa	agctggtcct	tgcagatctg	cttgagcctg	ttaaaaacttc	300
atcttctttg	gccactgtga	aaaagcaact	gagtagagtc	anatcaaaga	anacagtgga	360
gttacctctg	aacaaagaag	agattgaacg	gatccacaga	gaatagcatt	caataaaacg	420
cacaagtcct	ctccaaatgg	gaccctgtcg	tcctgaagaa	ccggcaggca	gagcagctgg	480
tttttccct	ggagaaagag	gagccagcca	ttgctcccat	tgaacatgtg	ctcagtggct	540
ggaaggcaag	aactcccctg	gagcaggaaa	ttttcaacct	cctccataag	aacaagcagc	600
cagtgcagaa	ccctttactg	accctgtgg	aaaaggcctc	tctccgagcc	atgagcctag	660
aagaggcaaa	gatgcgacga	gcagagcttc	agagggctcg	ggctctgcag	tcctactatg	720

	angccaaggc	tcgaagagag	aagaaaatcn	aaagttaaaa	gtatcacqaa	gtcgtgaaga	780
	aaggaaaggc	caagaaagcc	ctaaaagagt	ttgagcagct	gcggaagggt	aatccagctg	840
	ccgcactaga	agaacgaaga	aaaggaggaa	gaaggaggag	gagaaagaag	aagaacaagg	900
	agaagaagaa	agaagaaggg	agaaggagaa	gaaaagaagg	agaagaggaa	aaggaagaag	960
5	gagaaagaaa	aggagaagga	aaaggaaaag	aaggagaaga	aagaagaact	aagaagaagg	1020
	agaggaagaa	taagaaggaa	agaagaaaga	aaaaagtnaa	agaagaagaa	agaaggaaga	1080
	aggaaagaag	aggaagaact	nagaagaaga	aagaggagga	aagaagaaaag	aagaataagg	1140
	aacnagaaaag	aaggagaaga	aagaataaga	agaggaagaa	gaaaaagaag	aaaagaagaa	1200
	ggaaagaagg	agaaaaagga	agaaaaaagg	aagaagaaaag	tagaaagcgg	aagaaagaaa	1260
10	agaaagtata	agaaggaaga	agaagaaaga	aggaaaaa			1298

<210> 4

<211> 2236

<212> DNA

15 <213> Homo Sapiens

<400> 4

	cctggccccg	tcgcggtcgc	ggctctttcc	agctcctggc	agccggggcac	ccgaaggaac	60
	gggtcgtgca	acgacgcagc	tggacctggc	ccagccatgg	accgaaaagt	ggccccgagaa	120
20	ttccggcata	aggtggattt	tctgattgaa	aatgatgcag	agaaggacta	tctctatgat	180
	gtgctgcgaa	tgtaccacca	gaccatggac	gtggccgtgc	tcgtgggaga	cctgaagctg	240
	gtcatcaatg	aaccagccg	tctgcctctg	tttgatgcca	ttcggccgct	gatcccactg	300
	aagcaccagg	tggaatatga	tcagctgacc	ccccggcgct	ccaggaagct	gaaggagggtg	360
	cgtctggacc	gtctgcaccc	cgaaggcctc	ggcctgagtg	tgcgtggtgg	cctggagttt	420
25	ggctgtgggc	tcttcatctc	ccacctcatc	aaaggcggtc	aggcagacag	cgtcgggctc	480
	caggtagggg	acgagatcgt	ccggatcaat	ggatattcca	tctcctcctg	tacccatgag	540
	gaggtcatca	acctcattcg	aaccaagaaa	actgtgtcca	tcaaagtgag	acacatcggc	600
	ctgatccccg	tgaaaagctc	tctgatgag	cccctcactt	ggcagtatgt	ggatcagttt	660
	gtgtcggaat	ctggggggcgt	gcgaggcagc	ctgggctccc	ctggaaatcg	ggaaaacaag	720
30	gagaagaagg	tcttcatcag	cctggtaggc	tcccagggcc	ttggctgcag	catttccagc	780
	ggccccatcc	agaagcctgg	catctttatc	agccatgtga	aacctggctc	cctgtctgct	840
	gaggtgggat	tggagatagg	ggaccagatt	gtcgaagtca	atggcgtcga	cttctctaac	900
	ctggatcaca	aggaggctgt	aatgtgtctg	aaaaatagcc	gcagcctgac	catctccatt	960
	gtagctgcag	ctggccggga	gctgttcatg	acagaccggg	agcggctggc	agaggcgcg	1020
35	cagcgtgagc	tgcagcggca	ggagcttctc	atgcagaagc	ggctggcgat	ggagtccaac	1080
	aagatcctcc	aggagcagca	ggagatggag	cggcaaagga	gaaaagaaat	tgcccagaag	1140
	gcagcagagg	aaaatgagag	ataccggaag	gagatggaac	agattgtaga	ggaggaagag	1200
	aagtttaaga	agcaatggga	agaagactgg	ggctcaaagg	aacagctact	cttgcctaaa	1260
	accatcactg	ctgaggtaca	cccagtaccc	cttcgcaagc	caaagtatga	tcagggagtg	1320
40	gaacctgagc	tcgagcccg	agatgacctg	gatggaggca	cggaggagca	gggagagcag	1380
	gatttccgga	aatatgagga	aggctttgac	ccctactcta	tgttcacccc	agagcagatc	1440
	atgggggaagg	atgtccggct	cctacgcata	aagaaggagg	gatccttaga	cctggccctg	1500
	gaaggcggtg	tggactcccc	cattgggaag	gtggctcgttt	ctgctgtgta	tgagcgggga	1560

	gctgctgagc	ggcatggtgg	cattgtgaaa	ggggacgaga	tcatggcaat	caacggcaag	1620
	attgtgacag	actacaccct	ggctgagget	gacgctgccc	tgcagaaggc	ctggaatcag	1680
	ggcggggact	ggatcgacct	tgtggttgcc	gtctgcccc	caaaggagta	tgacgatgag	1740
	ctgaccttct	tgtctgaagtc	caaaagggga	aaccaaattc	acgcgttagg	aaacagttag	1800
5	ctccggcccc	acctcgtgaa	cacaaagcct	cggaccagcc	ttgagagagg	ccacatgaca	1860
	cacaccagat	ggcatccttg	ggacctgaat	ctatcaccca	ggaatctcaa	actccctttg	1920
	gccctgaacc	agggccagat	aaggaacagc	tccggccact	tttttgaagg	ccaatgtgga	1980
	ggaaagggag	cagccagccg	tttgggagaa	gatctcaagg	atccagactc	tcattccttt	2040
	cctctggccc	agtgaatttg	gtctctccca	gctttggggg	actccttcct	tgaaccctaa	2100
10	taagacccca	ctggagtctc	tctctctcca	tccctctcct	ctgccctctg	ctctaattgc	2160
	tgccaggatt	gtcactccaa	accttactct	gagctcatta	ataaaataaa	cagattttatt	2220
	ttccagctta	aaaaaa					2236

<210> 5

<211> 2162

<212> DNA

<213> Homo Sapiens

<400> 5

20	cctggccccg	tccggtgcgc	ggctctttcc	agctcctggc	agccggggcac	ccgaagggaac	60
	gggtcgtgca	acgacgcagc	tggacctggc	ccagccatgg	accgaaaagt	ggccccgagaa	120
	ttccggcata	aggtggattt	tctgattgaa	aatgatgcag	agaaggacta	tctctatgat	180
	gtgctgcgaa	tgtaccacca	gacctggac	gtggccgtgc	tccgtgggaga	cctgaagctg	240
	gtcatcaatg	aaccagcccg	tctgcctctg	tttgatgcca	ttcggccgct	gatccactg	300
25	aagcaccagg	tggaaatga	tcagctgacc	ccccggcgct	ccaggaagct	gaaggagggtg	360
	cgtctggacc	gtctgcaccc	cgaaggcctc	ggcctgagtg	tccgtgggtg	cctggagttt	420
	ggctgtgggc	tcttcatctc	ccacctcatc	aaaggcggtc	aggcagacag	cgtcgggctc	480
	caggtagggg	acgagatcgt	ccggatcaat	ggatattcca	tctcctcctg	tacccatgag	540
	gaggtcatca	acctcattcg	aaccaagaaa	actgtgtcca	tcaaagttag	acacatcggc	600
30	ctgatccccg	tgaaaagctc	tctgatgag	cccctcactt	ggcagtatgt	ggatcagttt	660
	gtgtcggaat	ctggggggcg	gcgaggcagc	ctgggctccc	ctggaaaatcg	ggaaaacaag	720
	gagaagaagg	tcttcatcag	cctggtaggc	tcccagggcc	ttggctgcag	cattttccagc	780
	ggccccatcc	agaagcctgg	catctttatc	agccatgtga	aacctggctc	cctgtctgct	840
	gaggtgggat	tggagatagg	ggaccagatt	gtcgaagtca	atggcgtcga	cttctctaac	900
35	ctggatcaca	aggaggctgt	aaatgtgctg	aaaaatagcc	gcagcctgac	catctccatt	960
	gtagctgcag	ctggccggga	gctgttcatt	acagaccggg	agcggctggc	agaggcgcg	1020
	cagcgtgagc	tgcagcggca	ggagcttctc	atgcagaagc	ggctggcgat	ggagtccaac	1080
	aagatcctcc	aggagcagca	ggagatggag	cggcaaagga	gaaaagaaat	tgcccagaag	1140
	gcagcagagg	aaaatgagag	ataccggaag	gagatggaac	agattgtaga	ggaggaagag	1200
40	aagttaaga	agcaatggga	agaagactgg	ggctcaaagg	aacagctact	cttgccctaaa	1260
	accatcactg	ctgaggtaca	cccagtaccc	cttcgcaagc	caaagtgatt	tccggaaata	1320
	tgaggaaggc	tttgaccctc	actctatgtt	caccccagag	cagatcatgg	ggaaggatgt	1380
	ccggctccta	cgcacaaaga	aggagggatc	cttagacctg	gccctggaag	gcgggtgtgga	1440

	ctccccatt	gggaaggtgg	tcgtttctgc	tgtgtatgag	cggggagctg	ctgagcggca	1500
	tggtggcatt	gtgaaagggg	acgagatcat	ggcaatcaac	ggcaagattg	tgacagacta	1560
	caccctggct	gaggctgacg	ctgccctgca	gaaggcctgg	aatcagggcg	gggactggat	1620
	cgaccttggt	gttgccgtct	gcccccaaa	ggagtatgac	gatgagctga	ccttcttgct	1680
5	gaagtccaaa	aggggaaacc	aaattcacgc	gttaggaaac	agtgagctcc	ggccccacct	1740
	cgtgaacaca	aagcctcgga	ccagccttga	gagaggccac	atgacacaca	ccagatggca	1800
	tccttgggac	ctgaatctat	caccaggaa	tctcaaactc	cctttggccc	tgaaccaggg	1860
	ccagataagg	aacagctcgg	gccacttttt	tgaaggccaa	tgtggaggaa	agggagcagc	1920
	cagccgtttg	ggagaagatc	tcaaggatcc	agactctcat	tcctttcctc	tggcccagtg	1980
10	aatttggtct	ctcccagctt	tgggggactc	cttctctgaa	ccctaataag	acccccactgg	2040
	agtctctctc	tctccatccc	tctcctctgc	cctctgctct	aattgctgcc	aggattgtca	2100
	ctccaaacct	tactctgagc	tcattaataa	aataaacaga	tttattttcc	agcttaaaaa	2160
	aa						2162

15 <210> 6
 <211> 1789
 <212> DNA
 <213> Homo Sapiens

20 <400> 6

	cttctggatg	catccgagaa	gctaaaactt	acttatgagg	aaaagtgtga	aattgaggaa	60
	tcccaattga	agtttttgag	gaacgactta	gctgaatata	agagaacttg	tgaagatctt	120
	aaagagcaac	taaagcataa	agaattttctt	ctggctgcta	atacttgtaa	ccgtgttggt	180
	ggtctttggt	tgaaatgtgc	tcagcatgaa	gctgttcttt	cccaaaccga	tactaatggt	240
25	catatgcaga	ccatcgaaag	actgggttaa	gaaagagatg	acttgatgtc	tgcactagtt	300
	tcogtaagga	gcagcttggc	agatacgagc	caaagagaag	caagtgccta	tgaacagggtg	360
	aaacaagttt	tgcaaatatc	tgagggaagcc	aattttgaaa	aaaccaaggc	tttaaatccag	420
	tgtgaccagt	tgagggaagga	gctggagagg	caggcggagc	gacttgaaaa	agaacttgca	480
	tctcagcaag	agaaaagggc	cattgagaaa	gacatgatga	aaaaggaaat	aacgaaagaa	540
30	agggagtaca	tgggatcaaa	gatgttgatc	ttgtctcaga	atattgccca	actggaggcc	600
	cagggtgaaa	aggttacaaa	ggaaaagatt	tcagctatta	atcaactgga	ggaaattcaa	660
	agccagctgg	cttctcgga	aatggatgtc	acaaagggtg	gtggagaaat	gcgctatcag	720
	ctgaataaaa	ccaacatgga	gaaggatgag	gcagaaaagg	agcacagaga	gttcagagca	780
	aaaactaaca	gggatcttga	aattaaagat	caggaaatag	agaaattgag	aatagaactg	840
35	gatgaaagca	aacaacactt	ggaacaggag	cagcagaagg	cagccctggc	cagagaggag	900
	tgcttgagac	taacagaact	gctgggagaa	tctgagcacc	aactgcacct	caccagacag	960
	gaaaaagata	gcattcagca	gagcttttagc	aagggaagcaa	aggcccaagc	ccttcaggcc	1020
	cagcaaagag	agcaggagct	gacacagaag	atacagcaaa	tgggaagcca	gcatgacaaa	1080
	actgaaaatg	aacagtattt	gttgctgacc	tcccagaata	catttttgac	aaagttaaag	1140
40	gaagaatgct	gtacattagc	caagaaactg	gaacaaatct	ctcaaaaaac	cagatctgaa	1200
	atagctcaac	tcagtcaaga	aaaaagggtat	acatatgata	aattgggaaa	gttacagaga	1260
	agaaatgaag	aattggagga	acagtgtgtc	cagcatggga	gagtacatga	gacgatgaag	1320
	caaaggctaa	ggcagctgga	taagcacagc	caggccacag	cccagcagct	ggtgcagctc	1380

	ctcagcaagc	agaaccagct	tctcctggag	aggcagagcc	tgtcggaga	ggtggaccgg	1440
	ctgcggaacc	agttaccag	catgccacaa	tctgattgct	gacctggatg	gaacagagt	1500
	aaataaatga	attacaaaga	gatattttaca	ttcatctggt	ttagacttaa	tatgccacaa	1560
	cgcaccacga	ccttcccagg	gtgacaccgc	ctcagcctgc	agtggggctg	gtcctcatca	1620
5	acgcggggcg	tgtccccgca	cgcagtcggg	ctggagctgg	agtctgactc	tagctgagca	1680
	gactcctggt	gtatgttttc	agaaatggct	tgaagttatg	tgtttaaatc	tgtctattcg	1740
	tatgctaggt	tatacatatg	attttcaata	aatgaacttt	ttaaagaaa		1789

<210> 7
 <211> 1306
 <212> DNA
 <213> Homo Sapiens

<400> 7

15	aaaaatagcc	gcagcctgac	catctccatt	gtagctgcag	ctggccggga	gctgttcatg	60
	acagaccggg	agcggctggc	agaggcgcg	cagcgtgagc	tgcagcggca	ggagcttctc	120
	atgcagaagc	ggctggcgat	ggagtccaac	aagatcctcc	aggagcagca	ggagatggag	180
	cggcaaagga	gaaaagaaat	tgcccagaag	gcagcagagg	aaaatgagag	ataccggaag	240
	gagatggaac	agattgtaga	ggagggaag	aagttaaaga	agcaatggga	agaagactgg	300
20	ggctcaaagg	aacagctact	cttgccataa	accatcactg	ctgaggtaca	cccagtaccc	360
	cttcgcaagc	caaagtatga	tcaggaggag	gaacctgagc	tcgagccgcg	agatgacctg	420
	gatggaggca	cggaggagca	gggagagcag	gatttccgga	aatatgagga	aggctttgac	480
	ccctactcta	tgttcacccc	agagcagatc	atggggaagg	atgtccggct	cctacgcac	540
	aagaaggagg	gatccttaga	cctggccctg	gaaggcggtg	tggactcccc	cattgggaag	600
25	gtggctcggtt	ctgctgtgta	tgagcgggga	gctgctgagc	ggcatggtgg	cattgtgaaa	660
	ggggacgaga	tcatggcaat	caacggcaag	attgtgacag	actacaccct	ggctgaggct	720
	gacgctgcc	tgcagaaggc	ctggaatcag	ggcggggact	ggatcgacct	tgtggttgcc	780
	gtctgcccc	caaaggagta	tgacgatgag	ctgaccttct	tgtgaagtc	caaaagggga	840
	aaccaaattc	acgcgttagg	aaacagtgag	ctccggcccc	acctcgtgaa	cacaaagcct	900
30	cggaccagcc	ttgagagagg	ccacatgaca	cacaccagat	ggcatccttg	ggacctgaat	960
	ctatcaccca	ggaatctcaa	actccctttg	gccctgaacc	agggccagat	aagggaacagc	1020
	tcggggccact	tttttgaagg	ccaatgtgga	ggaaaggagg	cagccagccg	tttgggagaa	1080
	gatctcaagg	atccagactc	tcattccttt	cctctggccc	agtgaatttg	gtctctccca	1140
	gctttggggg	actccttcct	tgaaccctaa	taagacccca	ctggagtctc	tctctctcca	1200
35	tcctctcct	ctgccctctg	ctctaattgc	tgccaggatt	gtcactccaa	accttactct	1260
	gagctcatta	ataaaataaa	cagatttatt	ttccagctta	aaaaaa		1306

<210> 8
 <211> 2289
 <212> DNA
 <213> Homo Sapiens

<400> 8

40